

CLAIMS

1. A torque transmission device comprising an input section for receiving a torque from a driving machine, an output section coupled to the driven machine and a bridge section for coupling the input section to the output section to transmit the torque from the input section to the output section; the bridge section being broken when the torque to be transmitted exceeds a predetermined value to interrupt the torque transmission, wherein

retaining means, in case of the breakage of the bridge section, fixed to one of the input section and the output section is provided for coupling the input section with the output section by the engagement with the other when the bridge section is broken.

2. A torque transmission device as defined by claim 1, wherein

the output section is fixed to a rotary part of the driven machine to be integral therewith, the input section is intermeshed with a drive side rotary part rotating by receiving the torque from the driving machine and is made to rotate together with the drive side rotary part, which intermeshed state is retained by a retaining force generated because the output section is formed integral with the rotary part, and

the retaining means, in case of the breakage of the bridge section, is fixed with the input section side and engaged with the output section side when the bridge section is broken.

3. A torque transmission device as defined by claim 1, wherein the axial detachment is prevented within the interior of the bridge section by the contour of the output section and a plate extending from the outside of the bridge section.

4. A torque transmission device comprising an input section for receiving a torque from a driving

machine, an output section coupled to the driven machine  
and a bridge section for coupling the input section to  
the output section to transmit the torque from the input  
section to the output section; the bridge section being  
5 broken when the torque to be transmitted exceeds a  
predetermined value to interrupt the torque transmission,  
wherein

retaining means in case of the breakage of  
the bridge section is provided for coupling the input  
10 section with the output section without contributing to  
the torque transmission between the input section and the  
output section.

5. A torque transmission device as defined by  
claim 4, wherein the axial detachment is prevented within  
15 the interior of the bridge section by the contour of the  
output section and a plate extending from the outside of  
the bridge section.